

CLAIMS

1. Method for carrying out in continuous, under so-called pseudo-isothermal conditions and in a predetermined reaction environment, such as a catalytic bed, a selected  
5 chemical reaction, comprising the steps of providing in said reaction environment at least one heat exchanger fed with a first flow of a heat exchange operating fluid at a respective predetermined inlet temperature, said fluid passing through said at least one heat exchanger according  
10 to a respective inlet/outlet path, which method is characterized by feeding into said at least one heat exchanger and at one or more intermediate positions of said path, a second flow of operating fluid having a respective predetermined inlet temperature.
- 15 2. Heat exchanger for the method according to claim 1, comprising two wide walls (2, 3; 21, 22), a chamber (5, 26) defined between said walls (2, 3; 21, 22) and intended for being passed through by a heat exchange operating fluid, a fluid inlet connector (6, 24) and a fluid outlet connector  
20 (7, 25) in and from said chamber (5, 26) respectively, at least a distributor (8, 9; 30, 31) of operating fluid, fixed to at least one of said walls (2, 3; 21, 22) at a predetermined distance from said connectors (6, 7; 24, 25) and in fluid communication with said chamber (5, 26), at  
25 least a duct (10, 28-29) for feeding said operating fluid, in communication with said at least one distributor (8, 9; 30, 31).
3. Heat exchanger according to claim 2, characterized in that said distributor (8, 9; 30, 31) comprises a plurality  
30 of through holes (13, 32) formed in said wall (3, 22) and a casing (14), fixed externally to said wall (3, 22) to cover said holes (13, 32) and defining with it a fluid distribution chamber (15).
4. Heat exchanger according to claim 3, characterized in

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that said through holes (13, 32) are arranged according to at least a rectilinear alignment.

5 5. Heat exchanger according to claim 2, characterized in that said feeding duct (10) is associated externally to said exchanger (1) and is in fluid communication with said at least one distributor (8, 9) through a respective connector (11, 12).

10 6. Heat exchanger according to claim 2, characterized in that said feeding duct (29) is formed between said large walls (21, 22), separated in a liquid-tight way from said chamber (26) and is in fluid communication with said at least one distributor (30, 31) through at least a through hole (33), formed in the feeding duct (29).

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